

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

JUL 23 2019

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

Farmington Field Office
Bureau of Land Management

5. Lease Serial No. **NMSF077282**
6. Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Hilcorp Energy Company

3a. Address

382 Road 3100, Aztec, NM 87410

3b. Phone No. (include area code)

505-599-3400

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.

Trieb Federal Com 601 1H

9. API Well No.

30-045-35906

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface Unit H (SE/NE) 2492' FNL & 405' FEL, Sec. 33, T30N, R10W
Bottomhole Unit F (SE/NW) 1878' FNL & 2329' FWL, Sec. 35, T30N, R10W

10. Field and Pool or Exploratory Area

Basin Mancos

11. Country or Parish, State

San Juan, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Revised
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	C102 & Drilling Plans
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Hilcorp Energy Company would like to change the drilling plans for the subject well. The plan now includes a contingent casing design and a pilot hole. The revised C102 and drilling plans are attached.

NMOCD

**ADHERE TO PREVIOUS NMOCD
CONDITIONS OF APPROVAL**

SEP 09 2019

DISTRICT III

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Priscilla Shorty

Title **Operations/Regulatory Technician - Sr.**

Signature

Priscilla Shorty

Date **7/23/2019**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

[Signature]

Petroleum Engineer

Title

9-5-2019

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

FFO

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instruction on page 2)

NMOCD

22

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT

17 OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unless mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order, heretofore entered by the division.

Signature: *Priscilla Shorty* Date: *7/19/19*
Printed Name: Priscilla Shorty
E-mail Address: pshorty@hilcorp.com

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35906	*Pool Code 97232	*Pool Name BASIN MANCOS
*Property Code	*Property Name TRIEB FEDERAL COM 601	*Well Number 1H
*OGRID No. 372171	*Operator Name HILCORP ENERGY COMPANY	*Elevation 6050'

¹⁰ Surface Location

U. or lot no.	Section	Township	Range	Lot (in)	Feet from the	North/South line	Feet from the	East/West line	County
H	33	30N	10W	8	2492	NORTH	405	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

U. or lot no.	Section	Township	Range	Lot (in)	Feet from the	North/South line	Feet from the	East/West line	County
F	35	30N	10W	6	1878	NORTH	2329	WEST	SAN JUAN
* Dedicated Acres 476.76					N/2 - Section 34 NW/4 - Section 35		* Joint or Infill		* Consolidation Code
									* Order No.

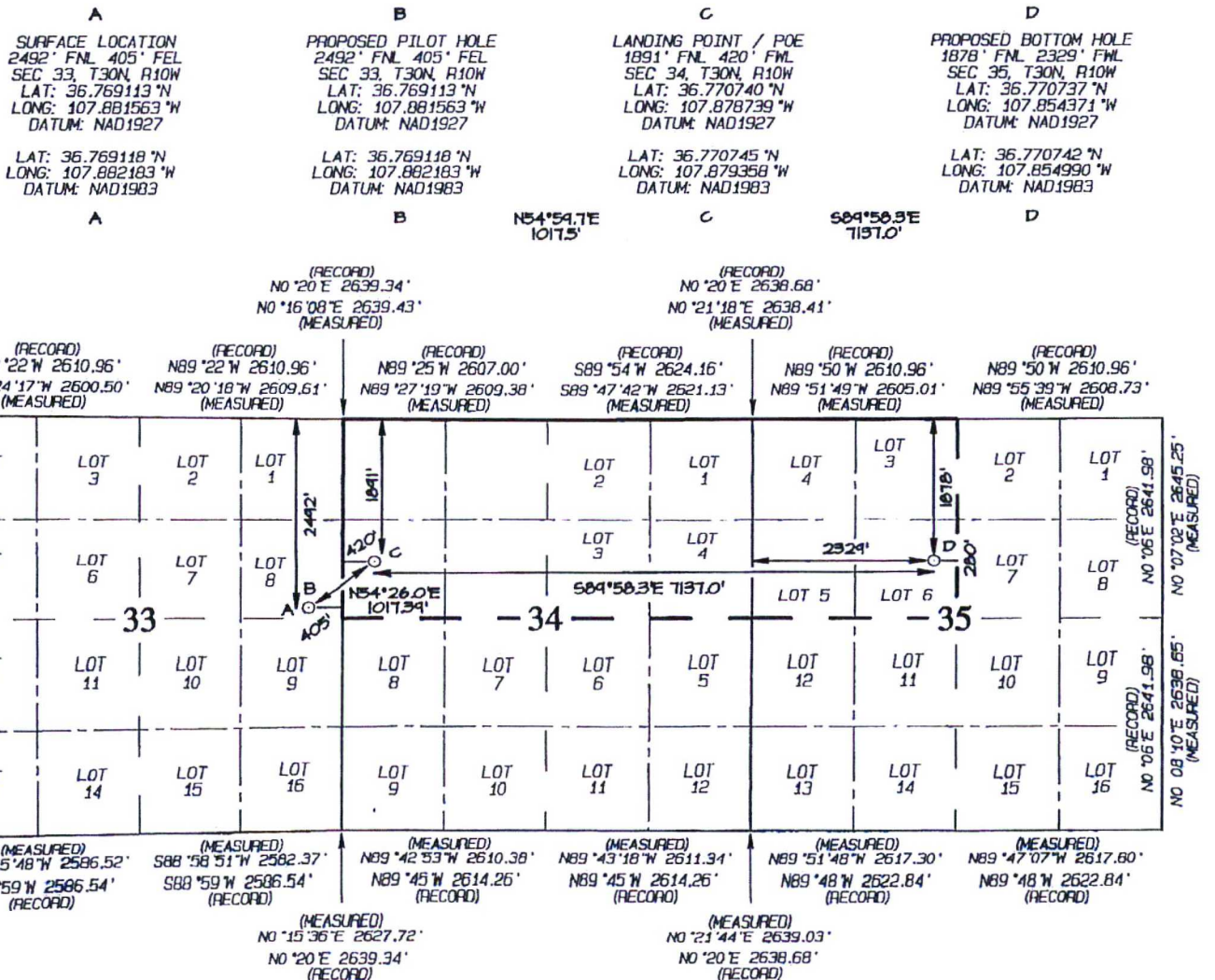
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

18 SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

Date Revised: JULY 16, 2019
Date of Survey: JULY 20, 2018
Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269



Hilcorp Energy Company

Technical Plan (7-22-19)

1. Location

TRIEB FEDERAL COM 601 1H
 SHL: 2492' FNL, 405' FEL -- T 30N, R 10W, Sec 33
 BHL: 1878' FNL, 2329' FWL -- T 30N, R 10W, Sec 35
 GL: 6050'

2. Geological Markers

Anticipated formation tops with comments of any possible water, gas, or oil shows are indicated below:

<u>Formation</u>	<u>(TVD)</u>	<u>Remarks</u>
San Jose	Surface	Wet
Ojo Alamo	1354'	Wet
Kirtland	1484'	Wet
Fruitland	2116'	Possible Gas/Water
Pictured Cliffs	2612'	Wet
Lewis Shale	3500'	
Massive Cliffhouse	3947'	Possible Gas/Water
Menefee	4358'	Possible Gas/Water
Point Lookout	4852'	Possible Gas/Water
Mancos	5282'	Oil/Gas
Mancos Lateral Target	6050'	Oil/Gas
Greenhorn – Pilot Hole	6753'	
TD of Pilot Hole	7100'	

3. Pressure Control Equipment

See Attached BOPE & Choke Manifold Schematic for a diagram of pressure control equipment.

- BOPE will be nipped up on top of wellhead after surface casing is set and cemented.
- Pressure control configuration for intermediate section will be designed to meet and exceed 2M standards.
- Pressure control configuration for pilot section and production section will be designed to meet and exceed 5M standards.
- A rotating head will be rigged up on top of annular as seen in attached diagram.



4. Casing & Cement Program

A) The proposed casing program is outlined below:

Proposed Casing				
Casing	Hole Size	Casing Size	Weight/Grade	Depth
Surface	24"	20"	106.5#, J-55, BTC, New	0' – 350' (MD)
Intermediate (Contingency)	17-1/2"	13-3/8"	68.0#, J-55, BTC, New	0' – 3,500'
Intermediate	12-1/4"	9-5/8"	40.0#, P-110, BTC, New	0' – 5,300' (MD)
Production	8-1/2"	5-1/2"	20.0#, P-110, BTC, New	0' – 13,944' (MD)

The 13-3/8" Intermediate casing string will be run only as contingency if losses occur in the Fruitland Coal section. If no losses are occurred, the hole will be downsized and the 9-5/8" Intermediate casing string will be the only intermediate casing string. The production casing will be run from total MD to surface. If the 8-1/2" hole is not drilled to total MD, the production casing setting depth and length will be adjusted accordingly. A toe initiation sliding sleeve will be installed at the toe of the production casing.

B) The proposed cement program is shown below:

Cement Program						
Interval	Depth (MD)	Sacks	Slurry	Excess	Volume	Planned Cement Top
Surface	350'	639	Lead Cmt: Premium Cement 2% CaCl, 0.125 lb/sk Poley E flake 1.175 ft ³ /sk -- 5.14 gal/sk, 15.8 ppg	100%	751 ft ³	Surface
Intermediate	4300'	1507	Lead Cmt: Halcem Sytem 0.3% HR-5, 0.125 lb/sk Poly E flake, 1.974 ft ³ /sk -- 10.28 gal/sk, 12.3 ppg	70%	2973 ft ³	Surface
	5300'	328	Tail Cmt: Varicem Cement 0.1% HR-5, 0.125 lb/sk Poly E flake, 1.295 ft ³ /sk -- 5.69 gal/sk, 13.5 ppg	30%	424 ft ³	4300'
Production	13944'	1866	Tail Cmt: Bondcem 0.3% Super CBL, 0.1% HR -601, 6.08 gal/sk FW. 13.3 ppg, 1.365 ft ³ /sk	10%	2547 ft ³	4000'

Actual cement volumes will be determined and may be adjusted onsite based on well conditions. Cement volumes for the contingency intermediate casing string will be determined if needed. For the intermediate hole, a 2-stage cement job may be performed if hole conditions indicate during operations. Stage tool will be placed appropriately as conditions indicate.

C) The proposed centralizer program is shown below:

Centralizer Program	
Interval	Centralizers
Surface	1 per joint on bottom 3 joints
Intermediate	1 above intermediate shoe joint with collar clamp 1 every 3 rd joint to surface
Production	1 per joint in horizontal section of production interval 1 every 3 rd joint in vertical section of production interval

To allow adequate time for cement to achieve a minimum of 500 psi compressive strength, a minimum of 8 hours wait on cement time for each hole section will be observed. The wellhead will not be installed, casing will not be tested, and the prior casing shoe will not be drilled out until adequate wait on cement time is achieved.

5. Drilling Fluids

A) The proposed drilling fluid program is outlined below:

Mud Program					
Interval	Mud Type	Weight (ppg)	Fluid Loss (cc)	Invert Ratio (Diesel/Brine)	Depth (MD)
Surface	Water / Gel System	8.3 - 9.2	NC		0-350'
Intermediate	LSND / Gel system	8.4 - 9	<6		350 - 5300'
Pilot Hole	LSND / Gel system	9 - 11	<6		5300' - 7100'
Production	Oil Based Mud	10 - 12	6-8	70/30 - 75/25	5300- TD'

Oil based mud will be an Invert Mud. Base fluid will be diesel. Brine fluid will be CaCl or KCl.

LCM may be added to the mud system if hole conditions indicate.

B) Closed loop equipment will be utilized for solids control. Cuttings from surface, intermediate, and production hole will be hauled to an approved disposal site.

6. Abnormal Pressures & Hazards

- No over-pressured intervals expected.
- Estimated Reservoir Pressure = 1875 psi. (Based on a pore pressure gradient of 0.31 psi/ft from layer pressure tests of Mancos formation in offset well)
- There is some offset Fruitland Coal, Mesa Verde, and Picture Cliffs production within the area which could result in these respective formations being under pressured.
- No hydrogen sulfide gas is expected based on nearby well production.

7. Pilot Hole

- Pilot Hole will be drilled through Mancos Section from intermediate casing at 5300' MD to planned TD of 7100'
- Whole core, sidewall cores, and Openhole logs are planned in the pilot hole section.
- After coring and Openhole logging have been completed, three cement plugs with viscous gel spacers will be pumped and the top of cement will be at ~5100'. Will utilize cement plugs to kick off and begin drilling production interval.
- Plug 1 will be from TD to 6500'. The second plug will be from 6500- 5900'. The third plug will be from 5900-5200'.

8. Testing, Logging, Coring

- Mud Logs: Mud loggers will be rigged up from KOP to production hole TD.
- MWD: Directional tools from KOP to production hole TD.
- LWD: Gamma Ray will be utilized in production hole for well placement.
- Core: Whole Core and Sidewall Cores planned in Pilot Hole section of well
- Logs: Triple Combo, Dipole Sonic, and image log planned in the Pilot Hole Section of well
- Cased Hole Logs: A Temp Survey or CBL will be ran on the intermediate hole if cement is not circulated to surface during intermediate cement job.

9. Directional Plan

The planned wellbore directional plan and plot is attached.

The planned directional plan is built off geological targets from offset wells. The production hole will be landed and drilled within target formation horizontally utilizing LWD equipment to help steer the wellbore. On site adjustments will be made to the directional plan as formation and hole indicates.



10. Completion

a) Pressure Test

- Pressure test 5-1/2" production casing to allowable frac pressure. Hold test for 30 minutes. Cycle pressure to activate toe sleeve

b) Stimulation

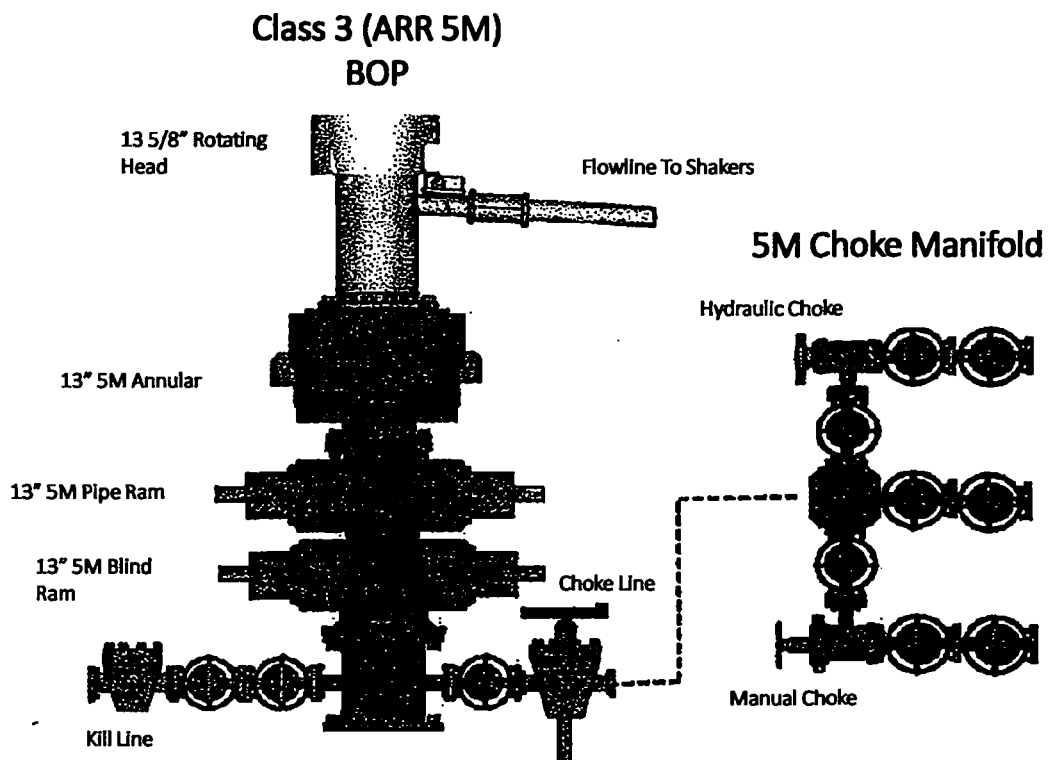
- Stimulate with approximately 10,000,000 pounds of proppant in 200,000 bbls of water; the number of stages and amount of proppant will be adjusted based on real-time pumping conditions during the stimulation
- Stages will be perforated using wireline and isolated using frac plugs
- Plugs will be drilled out and stimulation fluid will be flowed back

c) Running Tubing

- Production tubing will be run and landed at the top of the horizontal section of the well

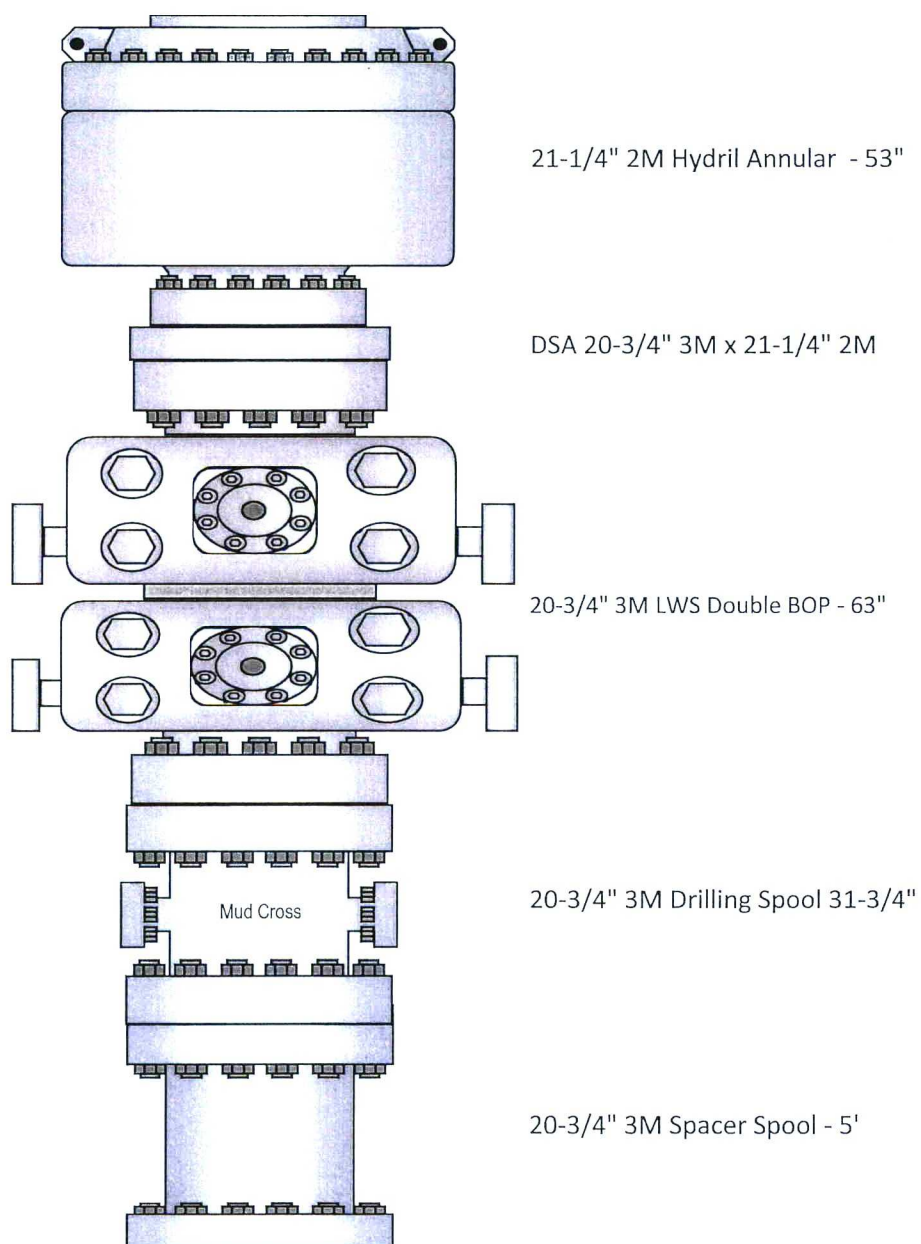
BOPE & Choke Manifold Schematic

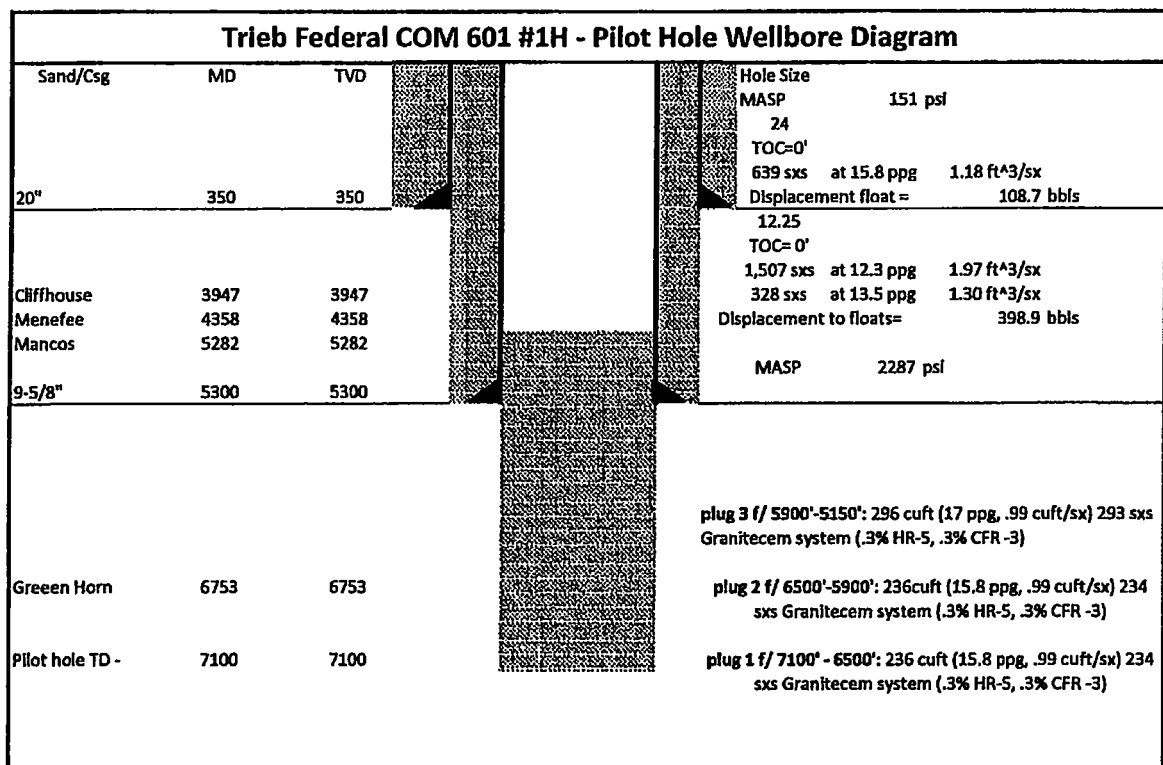
13-5/8" BOPE





2M BOP



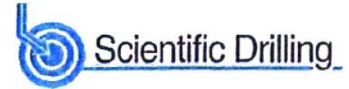


	Size	Wt	Depth	Grade	Cxn	Design Factors		
						Collapse	Burst	Tension
Surface	20.000	106.5	350	J55	BTC	Rating	770	2410
						SF	4.45	13.53
Int	9.625	40.0	5300	P110	BTC	Rating	3470.00	7910.00
						SF	1.33	3.02

Csg	ID	Drift	Capacity (bpf)	Displacement BPF	
				Closed end	Open end
Surface	19	18.81	0.3507	0.3886	0.0379
Int	8.835	8.679	0.0758	0.0900	0.0142



Company: Hilcorp Energy Corp.
 Project: San Juan, NM NAD27
 Site: Trieb Fed Pad
 Well: Trieb Federal Com 601 1H
 Wellbore: Pilot
 Design: Plan #2



Well Details: Trieb Federal Com 601 1H

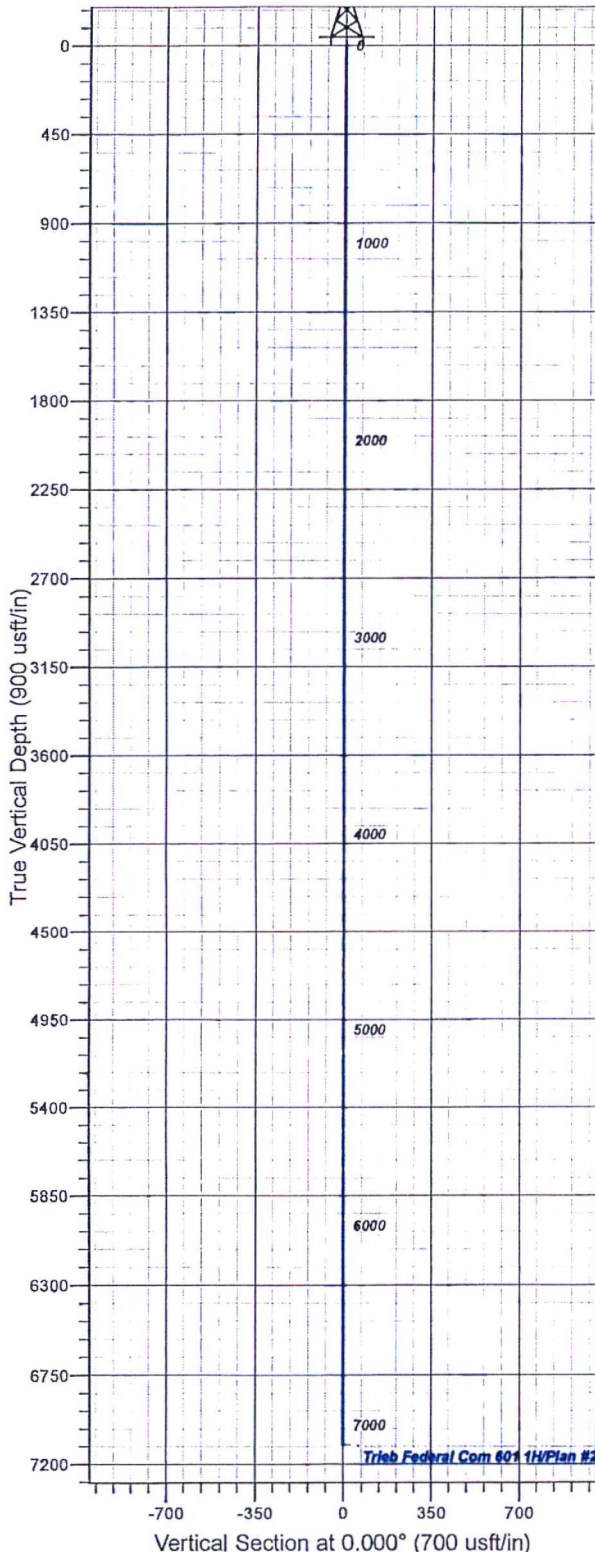
GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	2099218.10	485873.74	36.7691130	-107.8815630	B02

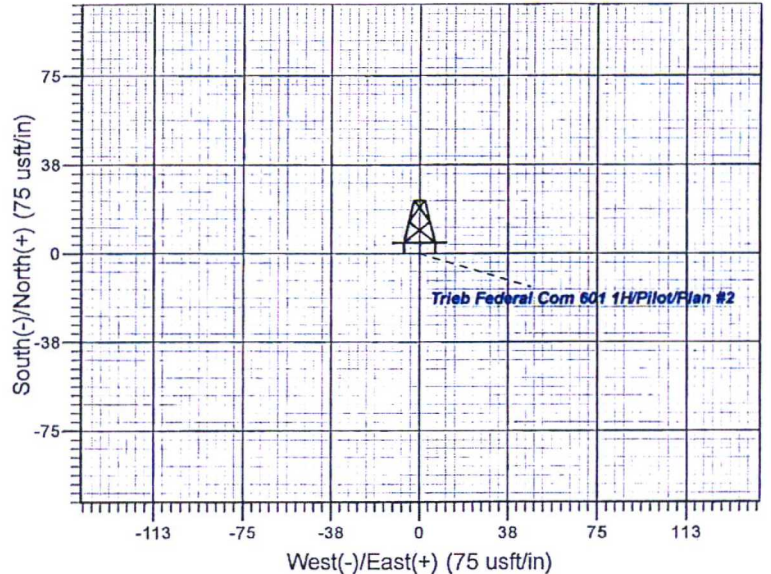


Azimuths to True North
 Magnetic North: 8.92°

Magnetic Field
 Strength: 49724.0snT
 Dip Angle: 63.27°
 Date: 7/9/2019
 Model: HDGM



Vertical Section at 0.000° (700 usft/in)



FORMATION TOP DETAILS

No formation data is available

CASING DETAILS

No casing data is available

Plan: Plan #2

12:08, July 10 2019
 Created By: Janie Collins

PROJECT DETAILS: San Juan, NM NAD27

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico West 3003

System Datum: Mean Sea Level

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	
2	7100.00	0.00	0.000	7100.00	0.00	0.00	0.00	0.00	0.00	

DESIGN TARGET DETAILS

No target data is available.



Hilcorp Energy Corp.

San Juan, NM NAD27

Trieb Fed Pad

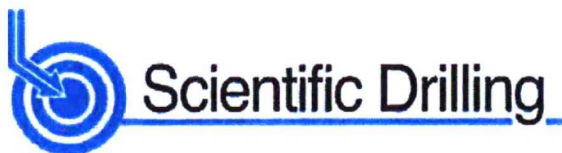
Trieb Federal Com 601 1H - Slot B02

Pilot

Plan: Plan #2

Standard Planning Report

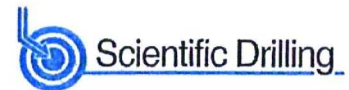
10 July, 2019



www.scientificdrilling.com



Scientific Drilling, Intl
Planning Report



Database:	Grand Junction District	Local Co-ordinate Reference:	Well Trieb Federal Com 601 1H - Slot B02
Company:	Hilcorp Energy Corp.	TVD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Project:	San Juan, NM NAD27	MD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Site:	Trieb Fed Pad	North Reference:	True
Well:	Trieb Federal Com 601 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot		
Design:	Plan #2		

Project	San Juan, NM NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site		Trieb Fed Pad			
Site Position:		Northing:	2,099,223.94 usft	Latitude:	36.7691290
From:	Map	Easting:	485,838.88 usft	Longitude:	-107.8816820
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-0.03 °

Well	Trieb Federal Com 601 1H - Slot B02					
Well Position	+N/-S	-5.82 usft	Northing:	2,099,218.10 usft	Latitude:	36.7691130
	+E/-W	34.86 usft	Easting:	485,873.74 usft	Longitude:	-107.8815630
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,050.00 usft

Wellbore	Pilot				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	7/9/2019	8.92	63.27	49,724

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.000

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,100.00	0.00	0.000	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00	



Scientific Drilling, Intl
Planning Report

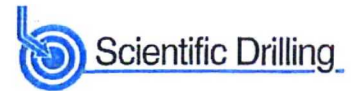


Database:	Grand Junction District	Local Co-ordinate Reference:	Well Trieb Federal Com 601 1H - Slot B02
Company:	Hilcorp Energy Corp.	TVD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Project:	San Juan, NM NAD27	MD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Site:	Trieb Fed Pad	North Reference:	True
Well:	Trieb Federal Com 601 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.000	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
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1,400.00	0.00	0.000	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.000	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.000	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.000	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.000	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.000	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.000	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.000	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.000	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.000	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.000	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.000	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.000	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.000	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.000	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.000	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.000	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.000	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.000	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.000	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.000	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.000	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.000	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.000	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.000	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.000	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.000	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.000	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.000	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.000	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.000	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.000	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.000	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.000	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.000	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.000	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.000	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.000	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00



Scientific Drilling, Intl
Planning Report

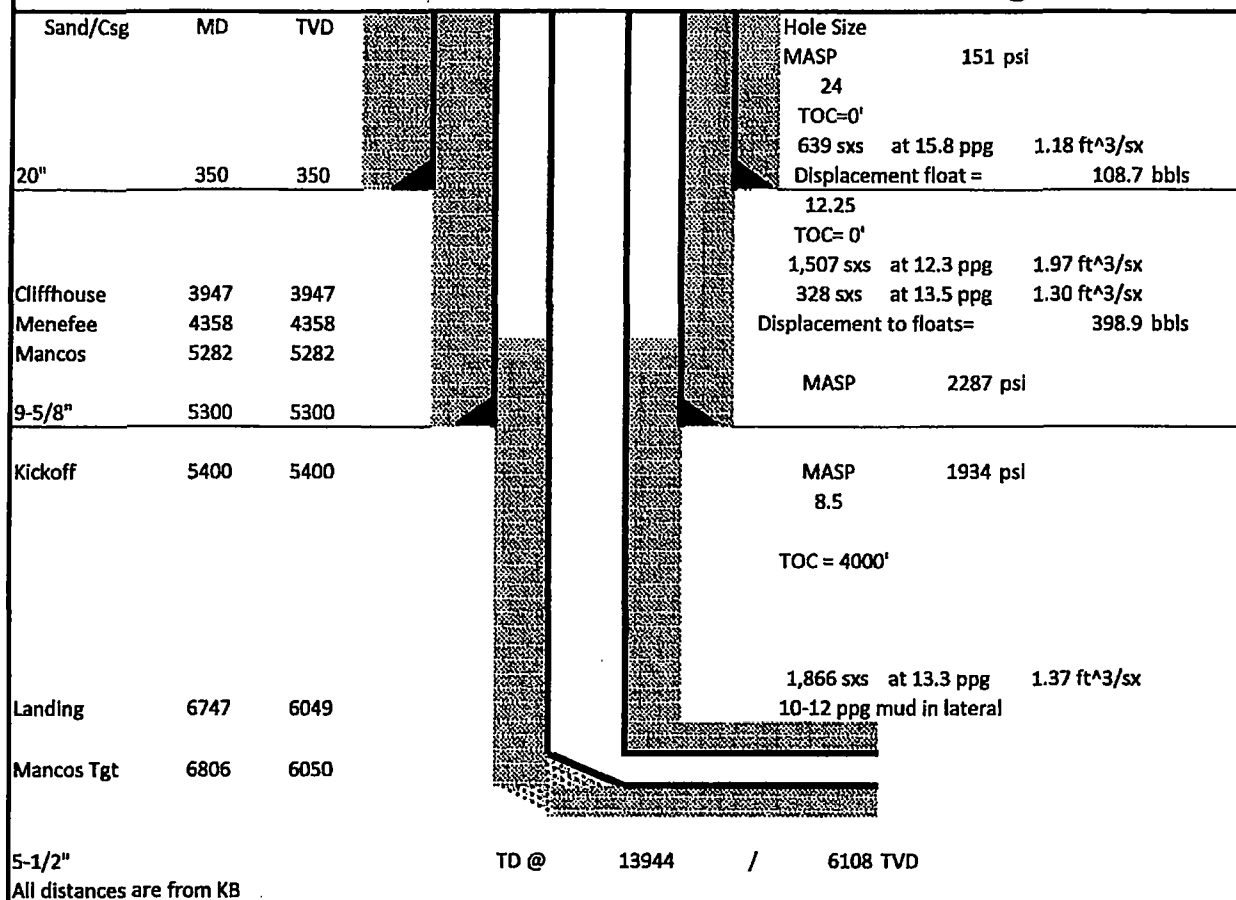


Database:	Grand Junction District	Local Co-ordinate Reference:	Well Trieb Federal Com 601 1H - Slot B02
Company:	Hilcorp Energy Corp.	TVD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Project:	San Juan, NM NAD27	MD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Site:	Trieb Fed Pad	North Reference:	True
Well:	Trieb Federal Com 601 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
5,200.00	0.00	0.000	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.000	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.000	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.000	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.000	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.000	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.000	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.000	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.000	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.000	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.000	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.000	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.000	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.000	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.000	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.000	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.000	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.000	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.000	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.000	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00

Trieb Federal COM 601 #1H - Lateral Hole Wellbore Diagram



						Design Factors			
	Size	Wt	Depth	Grade	Cxn		Collapse	Burst	Tension
Surface	20.000	106.5	350	J55	BTC	Rating	770	2410	913000
						SF	4.45	13.53	6.65
Int	9.625	40.0	5300	P110	BTC	Rating	3470.00	7910.00	988000.00
						SF	1.33	3.02	3.17
Prod	5.500	20.0	13944	P110	BTC	Rating	11000	12530	548000
						SF	3.30	3.84	1.45

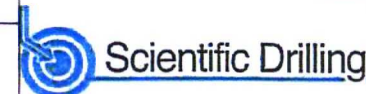
					Displacement BPF	
Csg	ID	Drift	Capacity (bpf)		Closed end	Open end
Surface	19	18.81	0.3507		0.3886	0.0379
Int	8.835	8.679	0.0758		0.0900	0.0142
Prod	4.778	4.653	0.0222		0.0294	0.0072



Company: Hilcorp Energy Corp.
Project: San Juan, NM NAD27
Site: Trieb Fed Pad
Well: Trieb Federal Com 601 1H
Wellbore: Lateral
Design: Plan #4

PROJECT DETAILS: San Juan, NM NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1886
Zone: New Mexico West 3003
System Datum: Mean Sea Level
Local North: True



Azimuths to True North
Magnetic North: 8.92°

Magnetic Field
Strength: 49726.9snT
Dip Angle: 63.27°
Date: 6/29/2019
Model: HDGM

WELL DETAILS: Trieb Federal Com 601 1H

GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
+N/-S +E/-W Northing Easting Latitude Longitude
0.00 0.00 2099218.10 485873.74 36.7691130 -107.8815630 B02

Plan: Plan #4 (Trieb Federal Com 601 1H/Lateral)

Created By: Janie Collins Date: 12:01, July 10 2019

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Trieb 601 1H LP	6050.00	592.32	827.22	2099810.00	486701.26	36.7707400	-107.8787386
Trieb 601 1H BHL	6108.00	592.31	7964.14	2099806.40	493638.17	36.7707369	-107.8543714

SECTION DETAILS

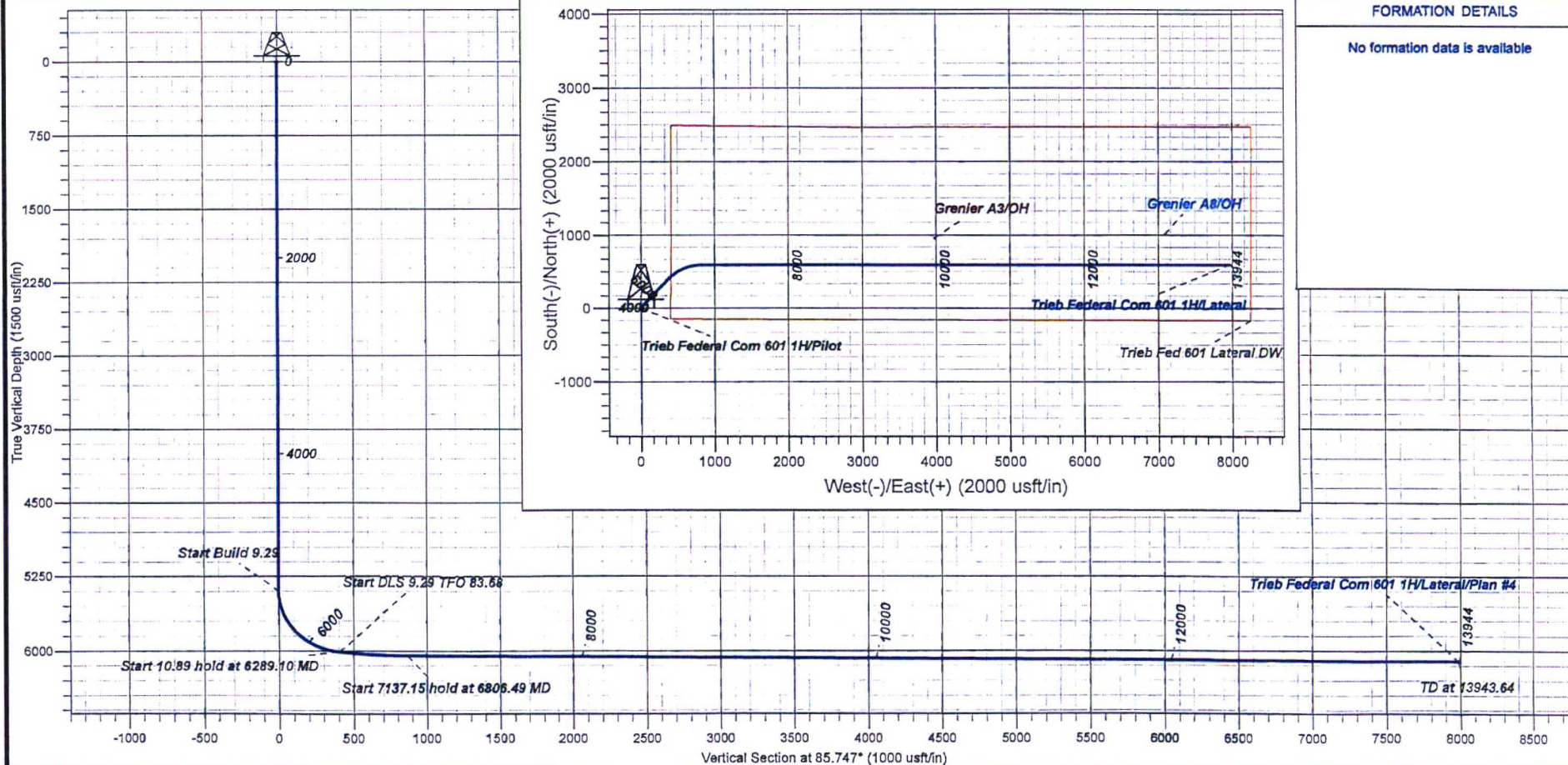
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
5400.00	0.00	0.000	5400.00	0.00	0.00	0.00	0.00	0.00	
6289.10	82.58	43.328	6011.72	390.78	368.51	9.29	43.33	396.58	
6299.98	82.58	43.328	6013.13	398.63	376.02	0.00	0.00	404.55	
6806.49	89.53	90.000	6050.00	592.32	827.22	9.29	63.68	868.87	Trieb 601 1H LP
13943.64	89.53	90.000	6108.00	592.31	7964.14	0.00	0.00	7986.13	Trieb 601 1H BHL

CASING DETAILS

No casing data is available

FORMATION DETAILS

No formation data is available





Hilcorp Energy Corp.

San Juan, NM NAD27

Trieb Fed Pad

Trieb Federal Com 601 1H - Slot B02

Lateral

Plan: Plan #4

Standard Planning Report

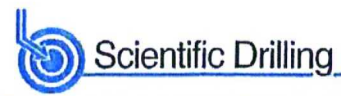
10 July, 2019



www.scientificdrilling.com



Scientific Drilling, Intl
Planning Report



Database:	Grand Junction District	Local Co-ordinate Reference:	Well Trieb Federal Com 601 1H - Slot B02
Company:	Hilcorp Energy Corp.	TVD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Project:	San Juan, NM NAD27	MD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Site:	Trieb Fed Pad	North Reference:	True
Well:	Trieb Federal Com 601 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #4		

Project	San Juan, NM NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site		Trieb Fed Pad			
Site Position:		Northing:	2,099,223.94 usft	Latitude:	36.7691290
From:	Map	Easting:	485,838.88 usft	Longitude:	-107.8816820
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-0.03 °

Well	Trieb Federal Com 601 1H - Slot B02					
Well Position	+N/-S	-5.82 usft	Northing:	2,099,218.10 usft	Latitude:	36.7691130
	+E/-W	34.86 usft	Easting:	485,873.74 usft	Longitude:	-107.8815630
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,050.00 usft

Wellbore	Lateral				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/29/2019	8.92	63.27	49,727

Design	Plan #4			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	5,400.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	85.747

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
5,400.00	0.00	0.000	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,289.10	82.58	43.328	6,011.72	390.78	368.61	9.29	9.29	0.00	43.33	
6,299.98	82.58	43.328	6,013.13	398.63	376.02	0.00	0.00	0.00	0.00	
6,806.49	89.53	90.000	6,050.00	592.32	827.22	9.29	1.37	9.21	83.68	Trieb 601 1H LP
13,943.64	89.53	90.000	6,108.00	592.31	7,964.14	0.00	0.00	0.00	0.00	Trieb 601 1H BHL



Scientific Drilling, Intl Planning Report

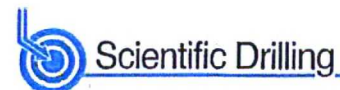


Database:	Grand Junction District	Local Co-ordinate Reference:	Well Trieb Federal Com 601 1H - Slot B02
Company:	Hilcorp Energy Corp.	TVD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Project:	San Juan, NM NAD27	MD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Site:	Trieb Fed Pad	North Reference:	True
Well:	Trieb Federal Com 601 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #4		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	0.00	0.000	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	9.29	43.328	5,499.56	5.88	5.55	5.97	9.29	9.29	0.00
5,600.00	18.58	43.328	5,596.51	23.38	22.05	23.73	9.29	9.29	0.00
5,700.00	27.86	43.328	5,688.31	52.03	49.07	52.80	9.29	9.29	0.00
5,800.00	37.15	43.328	5,772.55	91.08	85.91	92.43	9.29	9.29	0.00
5,900.00	46.44	43.328	5,847.03	139.50	131.59	141.58	9.29	9.29	0.00
6,000.00	55.73	43.328	5,909.78	196.04	184.92	198.95	9.29	9.29	0.00
6,100.00	65.01	43.328	5,959.16	259.20	244.50	263.05	9.29	9.29	0.00
6,200.00	74.30	43.328	5,993.89	327.33	308.77	332.20	9.29	9.29	0.00
6,289.10	82.58	43.328	6,011.72	390.78	368.61	396.58	9.29	9.29	0.00
6,299.98	82.58	43.328	6,013.13	398.63	376.02	404.55	0.00	0.00	0.00
6,300.00	82.58	43.328	6,013.13	398.64	376.03	404.56	0.00	0.00	0.00
6,400.00	83.69	52.617	6,025.11	465.03	449.70	482.96	9.29	1.11	9.29
6,500.00	84.97	61.862	6,035.01	518.81	533.30	570.31	9.29	1.28	9.24
6,600.00	86.38	71.069	6,042.57	558.57	624.62	664.33	9.29	1.41	9.21
6,700.00	87.88	80.247	6,047.59	583.28	721.28	762.55	9.29	1.50	9.18
6,800.00	89.43	89.406	6,049.94	592.28	820.73	862.40	9.29	1.55	9.16
6,806.49	89.53	90.000	6,050.00	592.32	827.22	868.87	9.29	1.57	9.15
6,900.00	89.53	90.000	6,050.76	592.32	920.73	962.12	0.00	0.00	0.00
7,000.00	89.53	90.000	6,051.57	592.32	1,020.73	1,061.84	0.00	0.00	0.00
7,100.00	89.53	90.000	6,052.39	592.32	1,120.72	1,161.57	0.00	0.00	0.00
7,200.00	89.53	90.000	6,053.20	592.32	1,220.72	1,261.29	0.00	0.00	0.00
7,300.00	89.53	90.000	6,054.01	592.32	1,320.72	1,361.01	0.00	0.00	0.00
7,400.00	89.53	90.000	6,054.82	592.32	1,420.71	1,460.73	0.00	0.00	0.00
7,500.00	89.53	90.000	6,055.64	592.32	1,520.71	1,560.45	0.00	0.00	0.00
7,600.00	89.53	90.000	6,056.45	592.32	1,620.71	1,660.17	0.00	0.00	0.00
7,700.00	89.53	90.000	6,057.26	592.32	1,720.70	1,759.89	0.00	0.00	0.00
7,800.00	89.53	90.000	6,058.07	592.32	1,820.70	1,859.62	0.00	0.00	0.00
7,900.00	89.53	90.000	6,058.89	592.32	1,920.70	1,959.34	0.00	0.00	0.00
8,000.00	89.53	90.000	6,059.70	592.32	2,020.69	2,059.06	0.00	0.00	0.00
8,100.00	89.53	90.000	6,060.51	592.32	2,120.69	2,158.78	0.00	0.00	0.00
8,200.00	89.53	90.000	6,061.32	592.32	2,220.69	2,258.50	0.00	0.00	0.00
8,300.00	89.53	90.000	6,062.14	592.32	2,320.68	2,358.22	0.00	0.00	0.00
8,400.00	89.53	90.000	6,062.95	592.32	2,420.68	2,457.94	0.00	0.00	0.00
8,500.00	89.53	90.000	6,063.76	592.32	2,520.68	2,557.66	0.00	0.00	0.00
8,600.00	89.53	90.000	6,064.58	592.32	2,620.67	2,657.39	0.00	0.00	0.00
8,700.00	89.53	90.000	6,065.39	592.32	2,720.67	2,757.11	0.00	0.00	0.00
8,800.00	89.53	90.000	6,066.20	592.32	2,820.67	2,856.83	0.00	0.00	0.00
8,900.00	89.53	90.000	6,067.01	592.32	2,920.66	2,956.55	0.00	0.00	0.00
9,000.00	89.53	90.000	6,067.83	592.32	3,020.66	3,056.27	0.00	0.00	0.00
9,100.00	89.53	90.000	6,068.64	592.32	3,120.66	3,155.99	0.00	0.00	0.00
9,200.00	89.53	90.000	6,069.45	592.32	3,220.65	3,255.71	0.00	0.00	0.00
9,300.00	89.53	90.000	6,070.26	592.31	3,320.65	3,355.43	0.00	0.00	0.00
9,400.00	89.53	90.000	6,071.08	592.31	3,420.65	3,455.16	0.00	0.00	0.00
9,500.00	89.53	90.000	6,071.89	592.31	3,520.64	3,554.88	0.00	0.00	0.00
9,600.00	89.53	90.000	6,072.70	592.31	3,620.64	3,654.60	0.00	0.00	0.00
9,700.00	89.53	90.000	6,073.51	592.31	3,720.64	3,754.32	0.00	0.00	0.00
9,800.00	89.53	90.000	6,074.33	592.31	3,820.63	3,854.04	0.00	0.00	0.00
9,900.00	89.53	90.000	6,075.14	592.31	3,920.63	3,953.76	0.00	0.00	0.00
10,000.00	89.53	90.000	6,075.95	592.31	4,020.63	4,053.48	0.00	0.00	0.00
10,100.00	89.53	90.000	6,076.76	592.31	4,120.62	4,153.20	0.00	0.00	0.00
10,200.00	89.53	90.000	6,077.58	592.31	4,220.62	4,252.93	0.00	0.00	0.00



Scientific Drilling, Intl Planning Report



Database:	Grand Junction District	Local Co-ordinate Reference:	Well Trieb Federal Com 601 1H - Slot B02
Company:	Hilcorp Energy Corp.	TVD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Project:	San Juan, NM NAD27	MD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Site:	Trieb Fed Pad	North Reference:	True
Well:	Trieb Federal Com 601 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #4		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,300.00	89.53	90.000	6,078.39	592.31	4,320.62	4,352.65	0.00	0.00	0.00	
10,400.00	89.53	90.000	6,079.20	592.31	4,420.61	4,452.37	0.00	0.00	0.00	
10,500.00	89.53	90.000	6,080.02	592.31	4,520.61	4,552.09	0.00	0.00	0.00	
10,600.00	89.53	90.000	6,080.83	592.31	4,620.61	4,651.81	0.00	0.00	0.00	
10,700.00	89.53	90.000	6,081.64	592.31	4,720.60	4,751.53	0.00	0.00	0.00	
10,800.00	89.53	90.000	6,082.45	592.31	4,820.60	4,851.25	0.00	0.00	0.00	
10,900.00	89.53	90.000	6,083.27	592.31	4,920.60	4,950.98	0.00	0.00	0.00	
11,000.00	89.53	90.000	6,084.08	592.31	5,020.59	5,050.70	0.00	0.00	0.00	
11,100.00	89.53	90.000	6,084.89	592.31	5,120.59	5,150.42	0.00	0.00	0.00	
11,200.00	89.53	90.000	6,085.70	592.31	5,220.59	5,250.14	0.00	0.00	0.00	
11,300.00	89.53	90.000	6,086.52	592.31	5,320.58	5,349.86	0.00	0.00	0.00	
11,400.00	89.53	90.000	6,087.33	592.31	5,420.58	5,449.58	0.00	0.00	0.00	
11,500.00	89.53	90.000	6,088.14	592.31	5,520.58	5,549.30	0.00	0.00	0.00	
11,600.00	89.53	90.000	6,088.95	592.31	5,620.57	5,649.02	0.00	0.00	0.00	
11,700.00	89.53	90.000	6,089.77	592.31	5,720.57	5,748.75	0.00	0.00	0.00	
11,800.00	89.53	90.000	6,090.58	592.31	5,820.57	5,848.47	0.00	0.00	0.00	
11,900.00	89.53	90.000	6,091.39	592.31	5,920.56	5,948.19	0.00	0.00	0.00	
12,000.00	89.53	90.000	6,092.21	592.31	6,020.56	6,047.91	0.00	0.00	0.00	
12,100.00	89.53	90.000	6,093.02	592.31	6,120.56	6,147.63	0.00	0.00	0.00	
12,200.00	89.53	90.000	6,093.83	592.31	6,220.55	6,247.35	0.00	0.00	0.00	
12,300.00	89.53	90.000	6,094.64	592.31	6,320.55	6,347.07	0.00	0.00	0.00	
12,400.00	89.53	90.000	6,095.46	592.31	6,420.55	6,446.79	0.00	0.00	0.00	
12,500.00	89.53	90.000	6,096.27	592.31	6,520.54	6,546.52	0.00	0.00	0.00	
12,600.00	89.53	90.000	6,097.08	592.31	6,620.54	6,646.24	0.00	0.00	0.00	
12,700.00	89.53	90.000	6,097.89	592.31	6,720.54	6,745.96	0.00	0.00	0.00	
12,800.00	89.53	90.000	6,098.71	592.31	6,820.53	6,845.68	0.00	0.00	0.00	
12,900.00	89.53	90.000	6,099.52	592.31	6,920.53	6,945.40	0.00	0.00	0.00	
13,000.00	89.53	90.000	6,100.33	592.31	7,020.53	7,045.12	0.00	0.00	0.00	
13,100.00	89.53	90.000	6,101.14	592.31	7,120.52	7,144.84	0.00	0.00	0.00	
13,200.00	89.53	90.000	6,101.96	592.31	7,220.52	7,244.56	0.00	0.00	0.00	
13,300.00	89.53	90.000	6,102.77	592.31	7,320.52	7,344.29	0.00	0.00	0.00	
13,400.00	89.53	90.000	6,103.58	592.31	7,420.51	7,444.01	0.00	0.00	0.00	
13,500.00	89.53	90.000	6,104.39	592.31	7,520.51	7,543.73	0.00	0.00	0.00	
13,600.00	89.53	90.000	6,105.21	592.31	7,620.51	7,643.45	0.00	0.00	0.00	
13,700.00	89.53	90.000	6,106.02	592.31	7,720.50	7,743.17	0.00	0.00	0.00	
13,800.00	89.53	90.000	6,106.83	592.31	7,820.50	7,842.89	0.00	0.00	0.00	
13,900.00	89.53	90.000	6,107.65	592.31	7,920.50	7,942.61	0.00	0.00	0.00	
13,943.64	89.53	90.000	6,108.00	592.31	7,964.14	7,986.13	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
Trieb 601 1H LP	0.00	0.000	6,050.00	592.32	827.22	2,099,809.99	486,701.26	36.7707400	-107.8787387	
- plan hits target center										
- Point										
Trieb 601 1H BHL	0.00	0.000	6,108.00	592.31	7,964.14	2,099,806.40	493,838.18	36.7707369	-107.8543714	
- plan hits target center										
- Point										



Scientific Drilling, Intl
Planning Report



Database:	Grand Junction District	Local Co-ordinate Reference:	Well Trieb Federal Com 601 1H - Slot B02
Company:	Hilcorp Energy Corp.	TVD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Project:	San Juan, NM NAD27	MD Reference:	GL 6050' & RKB 25' @ 6075.00usft (Aztec 1000)
Site:	Trieb Fed Pad	North Reference:	True
Well:	Trieb Federal Com 601 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #4		